

Undescribed plants from Guatemala. II.

JOHN DONNELL SMITH.

Chrysochlamys Guatemaltecana. (§ *Tovomitopsis*).—Arboreous, branchlets terete: leaves oblanceolate, 4-9 inches long, a third as broad, shortly acuminate, narrowed acuminate to a short petiole, chief lateral veins 10-12, younger leaves aureo-punctate and delicately reticulate with free veinlets: panicle short-peduncled, 3-4 inches long, tri-quadri-trichotomous, ultimate clusters cymose, axes complanate, bracteoles triangular and concave: flowers in specimens seen pseudo-hermaphrodite; *alabasha* round-oval, half the length of pedicels; bracts 2, ovate, $1\frac{1}{2}$ lines long: sepals 4, oval, nearly equal, 3 lines long: petals 4, obovoid, a little exceeding sepals, like them striate and punctate: stamens effete, indefinite, concrete at base, equaling ovary, external ones shorter, filaments flat and linear-tapering: stigmas 5, cuneately oblong, confluent at base, exceeding diameter of 5-locular ovary.—Forests of Pansamalá, Depart. Alta Verapaz, alt. 3,800 feet, June, 1886. (Ex Plantis Guatemalensibus Tuerckheimianis, quas edidit John Donnell Smith, 989.)

Harpalyce rupicola.—A shrub: petioles 6-9 lines long, like the racemes ferruginous-pubescent; leaves 4-5 inches long; leaflets 11-15, oblong, retuse, rounded at base, 1 inch or less long, half as broad, terminal one the longest, diminishing to lowest pair one-half shorter and oval, at first puberulous above and aureo-atomiferous beneath, both surfaces soon glabrate and minutely reticulated, impunctate, margins revolute, petiolulate: racemes axillary or from leafless nodes in terminal panicles, nearly equaling leaves, 12-18 flowered, peduncle equaling petiole, pedicel 4 lines long: calyx tomentose, atomiferous, oblong-falcate, half an inch long: petals purple, auricled on one side; vexillar exceeding the others, 9 lines long, 7 lines broad, round-obovate, auricle minute; alar $2\frac{1}{2}$ lines broad; carinal a little shorter, partly cohering: staminal sheath cleft to base; greater anthers linear-oblong, $\frac{3}{4}$ line long; others ovate, one-third as long: ovary linear, 1 locular, 6-7 ovulate.—Approaching *H. arborescens* Gray, the originals of which (Ervendberg 18, Coulter 556) in Harvard Univ. herb. differ by their coriaceous obscurely veined leaves atro-punctate beneath the close pubescence of under surface, short racemes of smaller flowers, biauriculate vexillum, smaller less heteromorphous anthers.

and habit.—Mountain cliffs near Santa Rosa, Depart. Baja Verapaz, alt. 5,000 feet, April, 1887. (Ex Pl. Guat. cit. 1210.)

Bauhinia Rubeleruziana. (§ *Casparia* DC.)—Arborescent, 10–15 feet high, rufous-tomentose: stipules and bracteoles linear-lanceolate, 2 lines long: petioles 9–15 lines long, inserted between a pair of minute subulate smooth spines; leaves membranaceous, glabrate above except midrib and margin, pubescent beneath with tomentose veins, ovate-oblong, cordate, 4–6 inches long, two-thirds as broad, 9-nerved; lobes triangular, acute, an inch or less long, sinus nearly rectangular: racemes extra-axillary, 15–20-flowered; rhachis at length an inch long, peduncle and pedicels a third shorter: flowers andro-monœcious, chiefly with abortive pistils, pendulous in the bud: calyx spathaceous, in the bud 9 lines long and 2 lines broad, tomentose, 5-denticulate by excurrent nerves: petals linear-lanceolate, spathulate, sessile, ciliate beneath, red, diminishing from the interior one 11 lines long and 2 lines broad to the exterior one a half smaller: stamens all shortly connate, each with a hirsute process on the inside near its adnation; the fertile 1, equaling petals, glabrous; the sterile about half as long, unequal, ciliate: pistil tomentose, exceeding petals; stipe nearly as long and style half as long as the linear 12-ovulate ovary.—Banks of Rio, Rubeleruz, Depart. Alta Verapaz, alt. 2,500 feet, April, 1886. (Ex Pl. Guat. cit. 896.)

Bauhinia Pansamalana. (§ *Casparia* DC.)—Smooth throughout: stipules and intrastipular spines minute, deciduous; petioles about 18 lines long, incrassate at each end; leaves coriaceous, entire, round-ovate to broadly elliptical, abruptly acuminate, 7-nerved, 5–7 inches long: racemes axillary and terminal, simple or dichotomous, exceeding petiole, 10–20-flowered; pedicels 8 lines long, recurved: flowers hermaphrodite: calyx in the bud linear, obtuse, entire, 9 lines long; in anthesis spathaceous, splitting into sepals at base only, reflexed: petals narrowly linear, tapering into a long claw, 10 lines long, the vexillar smaller: stamens united for a line or two in a sheath cleft to base; the fertile 3, equaling petals, anthers 2 lines long; staminodes intermediate with the fertile, half-connate, barbate within: pistil sigmoid, nearly equaling stamens; ovary pubescent in two lines, long-stipitate, beaked with a short stout style; stigma oblique, oval, a line long; legume coriaceous, flat, linear, 8–9 inches long, 9 lines

broad; seeds 9-12, oval, flat.—A tree 12-15 feet high with roseate flowers. River banks, Pansamalá and Sacolol, alt. 37-3800 feet, June, 1885. (Ex. Pl. Guat. cit. 681.)

Anneslia Quetzal. (*Calliandræ series Racemosæ* Benth. in Trans. Linn. Soc. xxx, 556.)—Glabrous, glaucescent: stipules persistent, reniform, amplexicaul, erect, cartilaginous, rubescent-pallid, flabellate-veined, 9-18 lines broad, three-fourths as long; petioles 12-18 lines long; pinnae 1-3-jugate, 4-6 inches long; leaflets 6-8-jugate, obliquely oblong or oval, base dimidiate-cordate, dark-green above, pale beneath, 12-18 lines long, a half to two-thirds as broad, lower pairs reduced; odd leaflet sessile, linear-lanceolate, 5-7 lines long, pallid, deciduous; peduncles 3-5 from upper axils, or shorter and subverticillate in a terminal thyrsoid sessile raceme half a foot or more long; pedicels of 5-flowered umbels 2-3 lines long; calyx equaling pedicel, lobes rounded; corolla 6-7 lines long, splitting at length nearly to base into lanceolate striate petals; stamens 60-70, connate for half the length of petals, 2-2½ inches long, half an inch shorter than style, white; anthers glabrous; legume flat, narrowly oblanceolate, about 4 inches long by 8 lines broad; valves coriaceous, glabrous, margins much thickened.—The large leaflets with a small odd one resemble those of several *Macrophyllæ*; but the inflorescence is that of *C. Calothyrsus* Miq., *C. grandiflora* Benth. (both collected by Mr. V. Türckheim), and the Mexican *C. leptopetala* Fourn.. The remarkable stipules seem to be approached by those of only one other species, the Brazilian *C. leptopoda* Benth.—Santa Rosa, Dept. Baja Verapaz, alt. 5,000 feet, July, 1887. (Ex. Pl. Guat. cit. 1324.)

Triolena paleolata.—Stem ligneous, ascending, nearly simple, terete, about a foot high; beset with paleaceous hairs, as are the petioles, nerves and margin of leaves, articulations of pedicels, and conspicuously the calyxes: leaves membranaceous, glabrous, pale beneath, ovate-lanceolate or lanceolate, 3-5-nerved from the small cordate base, triplinerved above, erose-denticulate; the larger one of each pair 4-6 inches long, a third to a half as broad, petiole 1-2 inches long; the other about a half smaller, shortly petioled: racemes from the uppermost 1-4 axils, 8-11-flowered, rhachis in fruit 1½-2 inches long and about equaling peduncle; pedicels scarcely a line long; calyx-lobes triangular-subulate, equaling tube: petals 5 lines long, 3 lines broad, pink: appendages

of greater stamens 2-3, clavellate-tipped, one-third longer than the uniporose anthers: capsule shortly obpyramidal, acutely triquetrous, 3 lines broad; seeds obconical, muriculate, pale with a red aril.—Damp rocks in the Pansamalá forests, alt., 3,800 feet, Aug., 1886. (Ex. Pl. Guat. cit. 726.)

Myriocarpa heterostachya. (*M. heterospicata*, BOT. GAZETTE, xii. 133.)—Monœcious and dioecious.—More recent specimens exhibit male and female spikes borne on distinct plants, as well as in distinct axils of the same plant.—Forests of Pansamalá, alt. 4,000 feet, Jan., 1887. (Ex. Pl. Guat. cit. 366.) The opportunity is seized to correct also the hybrid name first given.

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Uncinula polychæta B. & C.

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Although this species has been known for more than ten years, it is believed that an attempt to reconcile the differences in published descriptions, with the addition of such facts as have been noted in a recent examination of fresh specimens collected on Sand creek, five miles east of Starkville, Miss., will be of interest to mycologists.

The most important bibliography of the species is here given. The earliest published description is by Berkeley and Curtiss, in *Grevillea*, vol. iv, p. 159, 1875-76, as follows: "*Uncinula pleochæta*. Perithecia scattered, appendages about 28, $1\frac{1}{2}$ times longer than the diameter of the perithecium, hyaline. On leaves of *Celtis occidentalis*. Carolina. No. 5619." In Saccardo's *Sylloge Fungorum*, vol. i, p. 9, occurs the following (translation): "*Pleochæta*. Saccardo and Spegazzini. Michel. ii, p. 373. Perithecia imbedded in the mycelium, globose-lenticular, without aperture, texture subcoriaceous, parenchymatous, appendages very numerous, radiating, clavate, straight, simple, forming a hyaline band. Asci clavate, two-spored, spores rarely oval, without septa, sub-hyaline. Appendages very close together, straight, sub-hyaline at the base, asci smooth, etc. Separated from *Erysiphe* and *Uncinula*. *P. Curtisii*. Sacc. and Spez. Fung. Arg. Pug. ii, p. 44. *Erysiphe* and *Uncinula polychæta* Berkeley and Curtis, Grev. 1876, p. 159. *Uncinula Lynckii*